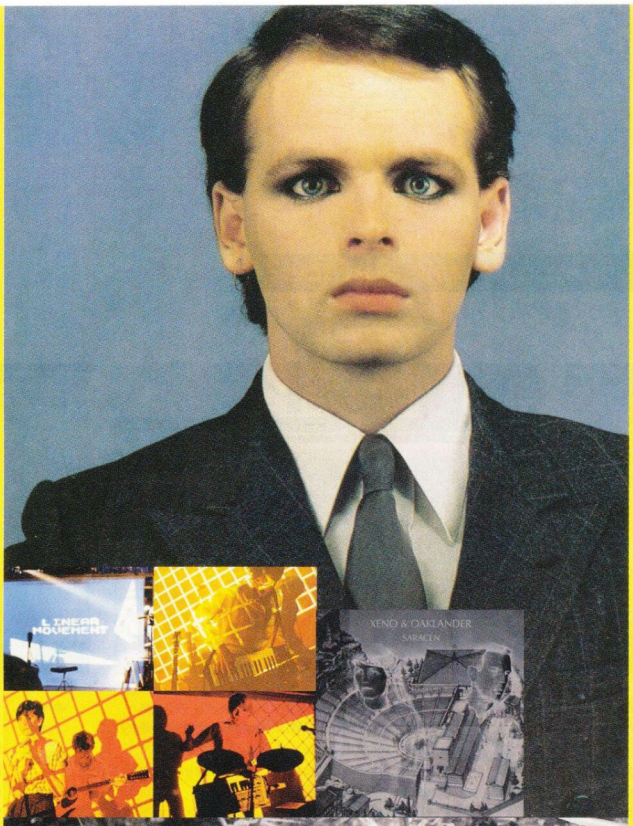
>cmfocus

MINIMAL WAVE

Old-school beatboxes and groaning synths converge in a genre that makes no apologies for living in the future past

cm DVD
ON THE DVD

Samples, audio examples and more are in the **Tutorial Files** folder



> **"It's cold outside, and the paint's peeling off of my walls."**

So sang a pale, young Gary Numan all those years ago. While his position at the top of the charts may have been unassailable, he set the stage for disenfranchised youth, for whom the traditional rock 'n' roll trappings of sex, drugs and electric guitars were less relevant than the man-machine of Kraftwerk and the gritty, grey gloom of a future that had more to do with JG Ballard than Jumpin' Jack Flash.

Numan wasn't the first, and he wouldn't be the last. There was something happening in Sheffield. Glam rock and futurism were colliding on stage with the earliest incarnation of The Human League, while Cabaret Voltaire began to test the boundaries of the avant-garde with a vague insinuation of funk. Elsewhere, John Foxx had jumped ship from Ultravox and unleashed what may be the first masterpiece of minimal wave (though it wasn't called that back then) in the form of *Metamatic*.

The music was raw, stark and exciting. It never took the world by storm, but it did make an impact on many musicians across the globe, whose DIY approach necessitated minimal arrangements that focused on mood more than machinery. Despite (or because of) these limitations, bands like Oppenheimer Analysis and Linear Movement rolled out some superb electronic pop that, sadly, never garnered much attention at the time. That would all change when New York DJ and label owner Veronica Vasicka began to resurrect interest in (and ultimately named) the genre, in the process bringing both old and new names to the attention of a new generation of electronic music fans.

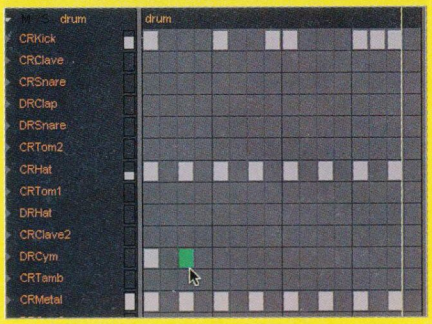
"Reproduce the cold, grey sound of a dystopian future that never came to be"

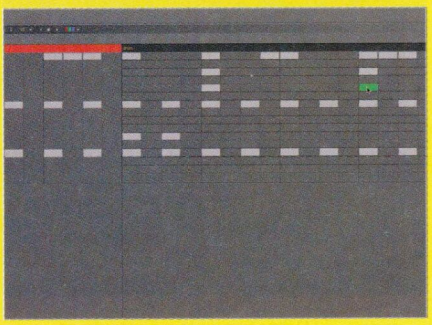
Using a computer to create minimal wave tracks might seem like heresy, but we take our cues from the electro-punk pioneers whose seminal works were cobbled together using whatever tools they had available to them. With that in mind, over the next few pages you'll learn how to reproduce the cold, grey sound of a dystopian future that never came to be. It might have been a bleak world to live in, but the soundtrack would have been brilliant!

> Step by step Make minimal wave drums

1 > Early minimal wave acts drew upon the venerable Roland CR-78 drum machine, while later bands used TR-808s and Boss DR-110s. There are software emulations of these available, but we're going to stick to samples of the real things. There's a folder full of them on the **cm** DVD, freshly captured and ready to roll into your favourite drum sampler. We're using the sampler built into the energyXT2 DAW.

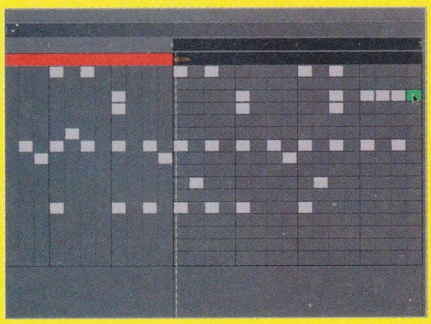
2 > We start by laying down a kick drum. Remember, there was nothing in the way of groove or swing on those old machines, so keep it rigid and quantised. Also, many of the currently accepted clichés had yet to come into vogue. For example, kick patterns tended to be busy, rather than strictly four-to-the-floor. We've purloined this kick pattern off one of the factory patterns on the CR-78.

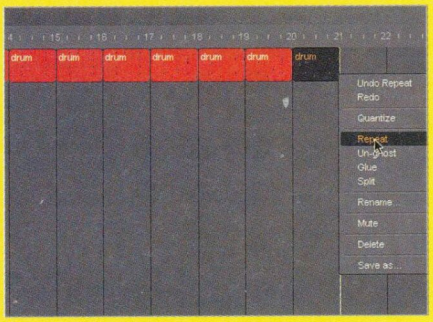




3 > Now let's add some hi-hats. These need to be simple, as we're emulating an old machine on which the hi-hats did little more than tap out the tempo. Placing hits on every eighth-note is fine, but the machine we're mimicking had a slider that imbued the hats with a metallic ring-mod-like effect. Double the hats with a sample of that sound and accent the first two hits with a DR-110 cymbal. That's the intro done!

4 > Let's make a copy of this beat. For now, we'll just stick it on right after the first one and worry about the arrangement later. Let's add some snares into the new version of the pattern. Again, try to keep things simple. We reckon doubling the CR-78 snare with the DR-110 sounds best, so we put that on the backbeats.

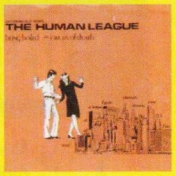




5 > Next, we need a 'chorus' pattern. Let's make this one substantially different from the first two. The hi-hats will carry the rhythm through. This time we double the snare hits with some DR-110 handclaps. Those come with a bit of reverb, sounding oh-so-new-wave. Let's make a second version of the chorus. The CR-78 has an auto-fill function, so we put in a snare fill towards the end.

6 > Let's make a basic arrangement out of our patterns. When arranging drum patterns for this sort of music, it pays to bear in mind that vintage drum machines offered little, if any, pattern storage, and the earliest didn't feature pattern chaining. Patterns were switched in and out on the fly. For that reason, it's best to use only a few different beats throughout.

Maximum minimal: Essential minimal wave classics



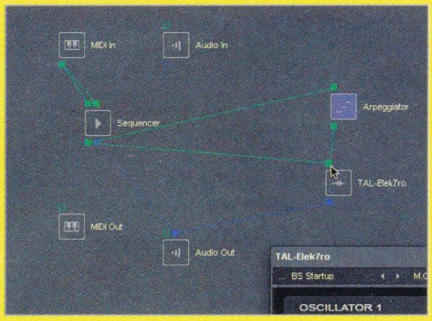
The Human League, *Being Boiled*
This track prompted David Bowie to proclaim he'd "seen the future of pop music". The earliest versions of *Being Boiled* are the best, packed with synthetic percussion, sweeping analogue basses and some surreal lyrics sung in a crooning monotone.

John Foxx, *Touch and Go*
From 1980's seminal *Metamatic* LP, *Touch and Go* has all the trademarks of the minimal wave movement: robotic rhythms, a tick-tock bassline underneath synthetic bell sounds, and a yelped chorus smothered in tinny reverb. It's cold, alienating and has a focus that could only have come from a man recording without the diluting influence of a band.

The Normal, *Warm Leatherette*
Daniel Miller started Mute Records for the purpose of releasing his own single. It's the flip side of *Autobahn*, inspired by Ballard's *Crash* and made entirely with an old Korg synth. Buzzes, chirps and white noise percussion bolster the musings of a car crash romantic. Incessant and grating, but undeniably intriguing.

Oppenheimer Analysis, *The Devils Dancers*
That familiar drum machine underpins an arrangement of buzzy analogue basses, thick, chorused synths strings and a plaintive yet accessible vocal.

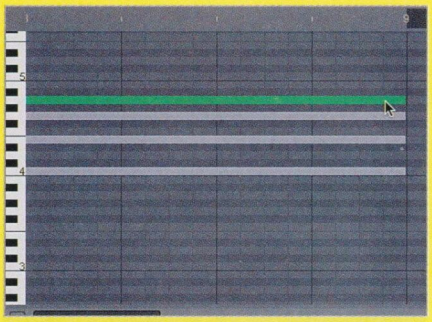
> Step by step Create authentic minimal wave sequences



1 > The sequencer plays a prominent role in this sort of music. Many of the original acts were influenced by punk's DIY ethic, and the sequencer gave those not trained in music the ability to get something going. They provided spiky, staccato patterns and were sometimes used for bass tracks. Let's fire up Togu Audio Line's TAL-Elek7ro and sequence it.

2 > Back in the early 80s, musicians relied on arpeggiators to provide their sequenced patterns. We're going to try that. TAL-Elek7ro doesn't have a built-in sequencer, so we use the one in energyXT2. Click to the Modular view and insert XT2's Arpeggiator module between the main sequencer and our synth.

3 > Next, dig through the synth's presets and see if you can find a suitable sound to serve as a starting point. After a bit of poking around, we find a bass sound called **BS Short PW Bass** that might make a good start. Let's try tweaking it to see if we can make it work. First, open the Filter **Cutoff** a little – set it to around 11 o'clock.

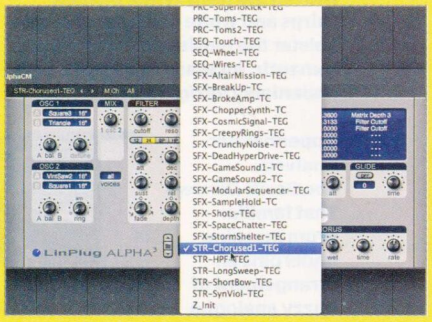


4 > The sound isn't quite short enough, so let's look at the envelope generator. The topmost ADSR in the Envelopes section is tied to the amplitude, so we need to adjust that one. Set the **Decay** to around 10 o'clock, the **Release** to just under 9 o'clock and shove the **Attack** and **Sustain** all the way down.

5 > Hold a two- or three-note chord somewhere in the middle of the keyboard – and preferably in a minor key! That sounds like just the thing for our track. Find a section in your arrangement where you'd like the arpeggiator to come in. Record or step-enter a simple four-note chord and stretch the notes over a full bar.

6 > Create another arpeggiation that complements the first, and alternate them. Add a third and fourth variation after the first two have played through twice. Don't over-complicate the patterns, and keep the progressions very basic. Fill out the rest of the track, putting in parts for the verses, but leaving the choruses blank.

> Step by step Add synth strings



1 > The buzzing, resonant synth strings of the ARP Omni bolstered many a synthpop song back in the day and our track could do with some of that magic. We can get a pretty good version of the sound from AlphaCM (in the **cm** Studio), so call it up on a new track and select the **STR-Chorused1-TEG** preset.

2 > Our track is a bit up-tempo for that patch, so let's adjust it to better fit the arrangement. It might be best to do this while a section of the song loops in the background. Start by lowering the Amp envelope's **Attack** to just above **0**. That makes it fit a little better with the BPM. Also, it could be brighter, so raise the filter **Cutoff** to around 3 o'clock. Finally, switch the filter to **12dB** mode.

3 > Now let's see if the sound fits. Play some simple chords to support your sequences. Again, keep it basic. These chords would have been played by hand back in the day, and usually by untrained performers, so rudimentary diatonic chords or octaves would be best. Hold each one for a bar and record (or step-enter) four bars or so. You can copy ours, if you like.

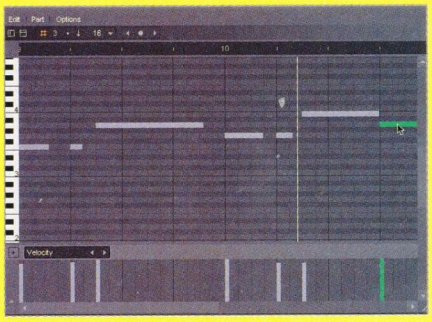
> Step by step Make awesome 80s synth basses

1 > If the Minimoog was *the* name for bass in the 70s, it was Roland that epitomised the synth bassline of the 80s. No, not the squelchy 303 – that wouldn't come into fashion until later – but rather the rubbery sounds of inexpensive monosynths like the SH-101. Let's once again look to Togu Audio Line, whose TAL-BassLine has '101' written all over it. So, call it up.

2 > The **Start Here** patch is fine. You could search for a suitable bass preset, but we prefer to roll our own, since we know just the sort of thing we're after. Turn the VCO section's **Range** knob down to **16** and kill the **Portamento** function, which is just to the left of the keyboard.

3 > In the Source Mixer, crank the **Pulse** slider way up and nudge the **Saw** waveform slider down to around **75**%. The **Sub Osc** should stay full up, and its setting of **-12** is fine. The Sub Osc was a common sight on Roland's single-osc synths – it helped to beef up the sound.

4 > In the filter (VCF) section, bring the **Freq** (cutoff) slider way down. Set it so that you can just see the slot under the bottom of the fader cap. Set the **Res**onance to about the same position. The sound is now pretty murky, so let's modulate it. Push up the VCF's **ENV** slider so that the top rests just about halfway up the throw. Now it's starting to exhibit that classic Roland bass sound!



5 > TAL-BassLine stays true to its heritage and offers only a single envelope generator for the VCA and the filter. That's OK – it helps to maintain the instrument's immediacy. The Envelope's **Attack** should be **0**, the **Sustain** just above that and the **Release** about a third of the way up, with the **Decay** a little higher.

6 > Now we've got a good bass sound, so we can play (or sequence) it into our track. Again, don't try to do a Wakeman – or even a Numan. If you're going to sequence it, keep the lines simple – even the same notes repeated would be OK. If you're going to play it by hand, keep the melody simple and stick to a few notes.

Leave it to the English! The brash, buzzing EDP Wasp gave many a budding Waver their first taste of synthesis.

The more it changes

What defines minimal wave? It's not just that there's a lack of instrumentation, but the lack of excess does play an important role in its sound. Acts took their cues from punk – relishing the idea that anyone could get onstage and have a go. Before Numan, Sheffield and Throbbing Gristle, the synthesiser was seen as a rich man's toy. However, in the late 70s/early 80s, instrument manufacturers began to cater to the previously untapped market for cheap and simple synths. The EDP Wasp hit the scene with a price below £200 and was quickly snapped up by the likes of Chris Carter, Click Click and Whitehouse, all of whom teased and tortured it to great effect.

Likewise, Roland, Korg, Moog and Sequential all trundled out stripped-down synths at bargain basement prices. Add to that the fact that older equipment was becoming available at a fraction of its original cost in secondhand shops and suddenly everyone and their uncle Wilhelm could have a synth or beatbox to play with.

A similar and equally significant revolution was occurring in the recording industry. Once solely the domain of label-backed groups, the recording studio was coming home. Four-track cassette machines and relatively inexpensive four- and eight-track reel-to-reel decks were being made by companies like Fostex and Tascam.

All of these things coalesced into a recipe for minimal wave, and helped to define its flavour. Minimal track counts, raw, largely untreated synths, sputtering drum machines and rudimentary production values were both a result of the available equipment and the musicians' desire to rail against slick, over-produced releases. The lack of gear played its part in the sound, but it was just as much the restless, rebellious spirit that inspired the art.

> Step by step Additional percussion

1 > Often, the lack of a proper drum kit meant that some alternative method of percussion needed to be devised. White noise from an analogue synth makes for some good electronic percussion. Fire up the free ZebraCM (in the **cm** Studio), which has a noise generator onboard. First, turn down the **Volume** of the main oscillators.

2 > The noise generator is on the middle-left side. Activate it and bring the Noise **Volume** all the way up. Now, nudge the **Filter1** knob down a little to reduce the high-frequency content. Play some notes. That's not too bad, but it sounds too much like static bursts.

3 > We can shape our sound with the envelope generators, which reside just below the Noise section. Turn the **Sustain** down on the topmost one, then turn Env1's **Release** up to about **32** and Env2's **Release** up to **65**. Now play some notes. Perfect! Lay these hits in to reinforce the backbeat, or as accents throughout the song.

Catching some (minimal) waves

Where you can learn more about minimal wave artists? The obvious answer is the home page for Veronica Vasicka's label of the same name: www.minimalwave.org. There you'll find a catalogue, artist interviews, a forum and a massive list of minimal wave artists. You can also check out tons of music by the artists.

Anna Logue Records (www.annalogueRecords.com) is a German label and studio intent on releasing records from early 80s electronic groups, with 32 releases to date by groups like Transparent Illusion, Delayscape and more.

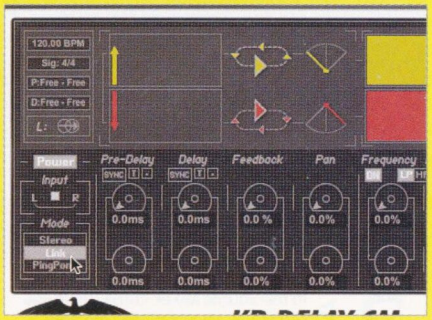
East Village Radio (www.eastvillageradio.com) is where it all came together. Veronica Vasicka's Minimal Wave radio show is on the Sunday schedule, streaming minimal wave, new wave, darkwave and other synth music to those whose heart pulses to the beat of an analogue kick drum.

Like the labels above, Dark Entries (www.darkentries.com) release out-of-print and unreleased synthesiser-based music from a variety of artists, such as Those Attractive Magnets and woefully underrated duo The Neon Judgement.

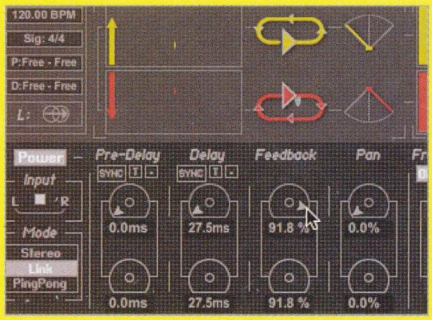
Kernkrach (www.kerkrach.de) are also on a mission to release never-before-heard minimal electronic music. They issue tracks on vinyl with handmade covers. There have been some two dozen releases on the label so far.

> Step by step Add accents and effects

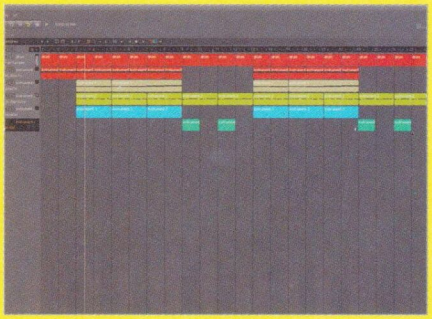
1 > Open up the **cm** Studio's CM-505 drum machine (you knew it was going to make an appearance, didn't you?). We're going to use its kick drum to accent a few kicks throughout the track. Enter a pattern. You can't really hear it yet because it's masked by the CR-78 kick, but it'll all make sense in the next step.



2 > Insert the KR-Delay CM plug-in (also in the **cm** Studio) on the CM-505 track. Normally, you'd use a delay like this to provide some echo, but we're looking to create an effect that was quite popular in the 80s. Click the **Link** button in the delay's **Mode** section. That'll give us a single bank of controls to tweak.



3 > Loop and play back a section that features the CM-505 hits. Set the KR-Delay's **Delay** time to **27.5ms** and turn the **Feedback** knob up to about **90%**. You'll hear the metallic, comb-filtering sound favoured by a lot of electronic musicians back in the day. This effect also does some pretty cool stuff to vocal tracks.



4 > Finally, a bit of rearranging. We limit the processed CM-505 to the first beat of every second bar in the 'chorus' section. Next, we tidy up the mix a bit, bringing the strings down and the sequence up. All that remains is to add a (very) few more tracks, if you like, and keep it as an instrumental – or throw some of your best Ferry-esque crooning over the top! **cm**